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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/597,899	04/23/2007	Darrell H. Reneker	089498.0489.US	7701
39905	7590	11/22/2010		
Joseph J. Crimaldi Roetzel & Andress 222 S. Main St. Akron, OH 44308			EXAMINER BOWMAN, ANDREW J	
			ART UNIT	PAPER NUMBER
			1711	
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			11/22/2010	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/597,899	<b>Applicant(s)</b> RENEKER ET AL.	
	<b>Examiner</b> ANDREW BOWMAN	<b>Art Unit</b> 1711	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 15 September 2010.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 13-31 is/are pending in the application.
- 4a) Of the above claim(s) 19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 13-18, 20-25 and 29-31 is/are rejected.
- 7) ☒ Claim(s) 26-28 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)         | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

Claims 13-31 remain pending in the current application with claim 19 being withdrawn. Further it should be noted that a statement of common assignment is not sufficient to disqualify the Chase reference that was previously applied. The applicant must prove that the inventions were commonly assigned "at the time of invention". (MPEP, 715.01). Until that is shown, Chase reference remains pertinent.

### ***Response to Arguments***

Regarding the teachings of Chase, the examiner agrees that Chase does not explicitly disclose at least one fiber being at least partially pushed through the filter medium, it is the position of the examiner that based on the size of the fibers employed that it would be extremely difficult to prevent it from happening. Therefore, in the absence of scientific reasoning provided by the applicant as to how not even a "portion" of fiber could be pushed through the holes of the filter medium, the examiner must maintain his position.

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 13 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Kozak et al. (US4983068).

a. Regarding claims 13 and 16, Kozak teaches stitching bags and grommets to bags (column 3, lines 24-49) using PP fibers.

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***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 13-18, 20-23, and 29 are rejected under 35 U.S.C. 103(a) as being obvious over Chase (USPGPub 2004/0159609).

- a. Regarding claims 13, 14, 16-18, and 21-23, Chase teaches that it is known to electrospin polymeric fibers (paragraph [0034]) through a liquid medium to be deposited

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on a filter substrate (paragraph [0008] and abstract) wherein the fibers are pushed through, into, and around holes in the filter to form a buildup. Chase fails to teach the materials of the current claims. However, Chase states “virtually any material capable of being electrospun might be employed to create and introduce nanofibers according to the particularly preferred invention disclosed herein”. The examiner is taking Official Notice to inform the applicant that it is common industry practice to electrospin both PP and PE. Therefore one of ordinary skill in the art would be motivated to use PP or PE in the invention of Chase because Chase clearly implies that these materials would be suited for his invention. Further, based on the examples given by Chase and the intended function of the final product, these materials would have to at least be considered obvious to try based on the prior art.

b. Regarding claim 15, Chase teaches the use of fluid jet (paragraph [0030]).

c. Regarding claim 20, it is the position of the examiner that the fibers are deposited from solution based on the description of the process and the equipment used, therefore the polymer must be at a temperature capable of doing so.

d. Regarding claim 29, it is the position of the examiner that the prior art meets the limitations of the claim, wherein the first side is the same as the second side, there would be at least some attraction/adhesion of the fibers to the filter and of the fibers to each other based on the materials that are used, and there no detail given to define a “joint”, therefore it is determined by the examiner to be a point where two materials meet.

5. Claims 22, 24, 25, and 30 are rejected under 35 U.S.C. 103(a) as anticipated by Greenhalgh et al. (USPGPub 2003/0195611).

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e. Regarding claim 22, 24, and 25, Greenhalgh teaches that it is known to deposit fibers by electrospinning onto a stent (abstract). It is the position of the examiner that based on the size of the fibers being deposited and the way in which the fibers are drawn onto the stent, that fiber would be attracted to both the interior and exterior surfaces of the stent and for fibers to get to the interior surface of the stent they would have to be pulled through an opening in the outer portion of the stent by attractive forces.

Greenhalgh teaches fails to teach the use of poly(L-lactic acid). However, Greenhalgh does teach the use of poly(lactic acid), of which poly(L-lactic acid) is a type. It is the position of the examiner that due to the small number of types of poly(lactic acid), it would be obvious to at least try any of them based on the disclosure of Greenhalgh.

Additionally the examiner is taking Official Notice to inform the applicant that it is common industry practice to use poly(L-lactic acid) in medical coatings.

f. Regarding claim 30, Greenhalgh further teaches melting the deposited fibers onto the stent (paragraph [0178]).

6. Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Greenhalgh et al. (USPGPub 2003/0195611) in view of Treat et al. (USPGPub 0073205).

g. Regarding claim 31, the teachings of Greenhalgh are as shown above.

Greenhalgh is silent as to methods that can be used to provide heat to a stent. However, Treat shows that a common way of heating stents is by using a heating element (paragraph [0052]), which is the most common and obvious way of heating most things in general (i.e. ovens, heaters, hot plates, and etc.) Therefore it is the position of the

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examiner that it would be considered obvious to heat the stent of Greenhalgh with the heating elements of Treat because they are shown to be suitable for such purposes,

*Allowable Subject Matter*

7. Claims 26-28 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. The following is a statement of reasons for the indication of allowable subject matter:

It is the position of the examiner that in general it is not known in the prior art to use a pin-like object to pull a polymeric nanofiber through a hole in a substrate.

i. The most pertinent prior art (USPGPub 2004/0159609) teaches that it is known to deposit nanofibers on the surface of a filter medium. However, the prior art fails to teach the use of a needle-like object to pull at least one fiber through the filter medium.

ii. Another prior art (US4983068) teaches sewing polymeric fibers onto a bag. However, the fibers lack nanoscale dimensions and in this case it would not be obvious as to how to employ nanoscale fibers in the place of the fibers of the prior art.

iii. Another prior art (USPGPub 2002/0100725) teaches that it is known to deposit a laundry list of materials by electrospinning. However, the prior art is silent as to the use of objects to pull deposited fibers through any substrate.

iv. Another prior art (USPGPub 2003/0195611) teaches that it is known to deposit fibers by electrospinning onto substrates that contain holes. However, the

prior art fails to teach wherein the fibers are pulled through the substrate with a pin-like object.

v. Another prior art (USPGPub 2004/0073205) teaches that it is known to heat treat electrospun fibers, but is otherwise generally unrelated.

***Conclusion***

2. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANDREW BOWMAN whose telephone number is (571)270-5342. The examiner can normally be reached on Monday through Friday (7:30 to 5:00)EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on 571-272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael Barr/  
Supervisory Patent Examiner, Art Unit 1711

Andrew J Bowman  
Examiner  
Art Unit 1711